

STATE OF SOUTH CAROLINA

Application of South Carolina Electric & Gas
Company for a Certificate of Environmental
Compatibility and Public Convenience and Necessity
for the Construction and Operation of Two 230 kV
Transmission Lines From Its V.C. Summer
Switchyard #2 to Its Planned St. George Switching
Station

Young - 237775
Hollifield - 237776

BEFORE THE
PUBLIC SERVICE COMMISSION
OF SOUTH CAROLINA

COVER SHEET

DOCKET

NUMBER: 2012 - 225

2012 JUL 18 AM 10:08

RECEIVED

SC PUBLIC SERVICE
COMMISSION

(Please type or print)

Submitted by: Matthew W. Gissendanner

SC Bar Number: 76027

Address: SCANA Corp.
220 Operation Way, MC-C222
Cayce, SC 29033-3701

Telephone: 803-217-5359

Fax: 803-217-7931

Other:

Email: matthew.gissendanner@scana.com

NOTE: The cover sheet and information contained herein neither replaces nor supplements the filing and service of pleadings or other papers as required by law. This form is required for use by the Public Service Commission of South Carolina for the purpose of docketing and must be filled out completely.

DOCKETING INFORMATION (Check all that apply)

☐ Emergency Relief demanded in petition ☐ Request for item to be placed on Commission's Agenda expeditiously

☐ Other:

INDUSTRY (Check one)	NATURE OF ACTION (Check all that apply)			
<input checked="" type="checkbox"/> Electric	<input type="checkbox"/> Affidavit	<input checked="" type="checkbox"/> Letter	<input type="checkbox"/> Request	
<input type="checkbox"/> Electric/Gas	<input type="checkbox"/> Agreement	<input type="checkbox"/> Memorandum	<input type="checkbox"/> Request for Certification	
<input type="checkbox"/> Electric/Telecommunications	<input type="checkbox"/> Answer	<input type="checkbox"/> Motion	<input type="checkbox"/> Request for Investigation	
<input type="checkbox"/> Electric/Water	<input type="checkbox"/> Appellate Review	<input type="checkbox"/> Objection	<input type="checkbox"/> Resale Agreement	
<input type="checkbox"/> Electric/Water/Telecom.	<input type="checkbox"/> Application	<input type="checkbox"/> Petition	<input type="checkbox"/> Resale Amendment	
<input type="checkbox"/> Electric/Water/Sewer	<input type="checkbox"/> Brief	<input type="checkbox"/> Petition for Reconsideration	<input type="checkbox"/> Reservation Letter	
<input type="checkbox"/> Gas	<input type="checkbox"/> Certificate	<input type="checkbox"/> Petition for Rulemaking	<input type="checkbox"/> Response	
<input type="checkbox"/> Railroad	<input type="checkbox"/> Comments	<input type="checkbox"/> Petition for Rule to Show Cause	<input type="checkbox"/> Response to Discovery	
<input type="checkbox"/> Sewer	<input type="checkbox"/> Complaint	<input type="checkbox"/> Petition to Intervene	<input type="checkbox"/> Return to Petition	
<input type="checkbox"/> Telecommunications	<input type="checkbox"/> Consent Order	<input type="checkbox"/> Petition to Intervene Out of Time	<input type="checkbox"/> Stipulation	
<input type="checkbox"/> Transportation	<input type="checkbox"/> Discovery	<input checked="" type="checkbox"/> Prefiled Testimony	<input type="checkbox"/> Subpoena	
<input type="checkbox"/> Water	<input checked="" type="checkbox"/> Exhibit	<input type="checkbox"/> Promotion	<input type="checkbox"/> Tariff	
<input type="checkbox"/> Water/Sewer	<input type="checkbox"/> Expedited Consideration	<input type="checkbox"/> Proposed Order	<input type="checkbox"/> Other:	
<input type="checkbox"/> Administrative Matter	<input type="checkbox"/> Interconnection Agreement	<input type="checkbox"/> Protest		
<input type="checkbox"/> Other:	<input type="checkbox"/> Interconnection Amendment	<input type="checkbox"/> Publisher's Affidavit		
	<input type="checkbox"/> Late-Filed Exhibit	<input type="checkbox"/> Report		

RETURN DATE: *OK*
SERVICE: *OK*



Matthew W. Gissendanner
Assistant General Counsel

matthew.gissendanner@scana.com

July 18, 2012

VIA HAND DELIVERY

The Honorable Jocelyn Boyd
Chief Clerk and Administrator
Public Service Commission of South Carolina
101 Executive Center Drive
Columbia, South Carolina 29210

RECEIVED
2012 JUL 18 AM 10:08
SC PUBLIC SERVICE
COMMISSION

RE: Application of South Carolina Electric & Gas Company for a Certificate of Environmental Compatibility and Public Convenience and Necessity for the Construction and Operation of Two 230 kV Transmission Lines From Its V.C. Summer Switchyard #2 to Its Planned St. George Switching Station
Docket No. 2012-225-E

Dear Ms. Boyd:

Enclosed for filing on behalf of South Carolina Electric & Gas Company ("SCE&G" or "Company") in the above-captioned docket are the direct testimony and exhibits of Hubert C. Young, III and Dwight M. Hollifield.

By copy of this letter, we are providing the other parties of record with a copy of SCE&G's direct testimony and attach a certificate of service to that effect.

If you have any questions, please advise.

Very truly yours,

Matthew W. Gissendanner

MWG/mcs
Enclosures

cc: John W. Flitter
Jeffrey M. Nelson, Esquire
(both via hand delivery w/enclosures)
Alvin A. Taylor
Duane Parrish
Marshall Taylor, Esquire
(all via U.S. First Class Mail w/enclosures)

BEFORE
THE PUBLIC SERVICE COMMISSION OF
SOUTH CAROLINA
DOCKET NO. 2012 - 225 - E

RECEIVED
2012 JUL 18 AM 10:08
SC PUBLIC SERVICE
COMMISSION

IN RE:

Application of South Carolina Electric &)
Gas Company for a Certificate of)
Environmental Compatibility and Public)
Convenience and Necessity for the)
Construction and Operation of Two 230)
kV Transmission Lines From Its V.C.)
Summer Switchyard #2 to Its Planned St.)
George Switching Station)

CERTIFICATE OF SERVICE

This is to certify that I have caused to be served this day one (1) copy of South Carolina Electric & Gas Company's **Direct Testimony and Exhibits of Hubert C. Young, III and Dwight M. Hollifield** via U.S. First Class Mail to the persons named below at the addresses set forth:

Alvin A. Taylor
South Carolina Dept. of Natural Resources
Post Office Box 167
Columbia, SC 29202

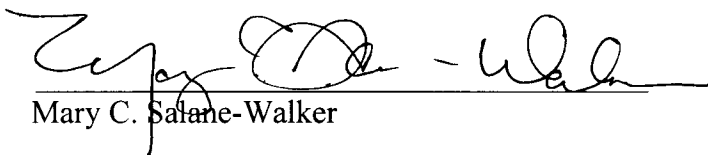
Marshall Taylor, Esquire
SCDHEC
2600 Bull Street
Columbia, SC 29201

Duane Parrish
SC Dept. of Parks, Recreation and Tourism
1205 Pendleton Street, Suite 248
Columbia, SC 29201

This is to certify that I have caused to be served this day one (1) copy of South Carolina Electric & Gas Company's **Direct Testimony and Exhibits of Hubert C. Young, III and Dwight M. Hollifield** via hand delivery to the persons named below at the addresses set forth:

John W. Flitter
Office of Regulatory Staff
1401 Main Street, Suite 900
Columbia, SC 29201

Jeffrey Nelson, Esquire
Office of Regulatory Staff
1401 Main Street, Suite 900
Columbia, SC 29201


Mary C. Salane-Walker

Cayce, South Carolina
This 18th day of July, 2012

**DIRECT TESTIMONY OF
DWIGHT M. HOLLIFIELD, ASLA**

**ON BEHALF OF
SOUTH CAROLINA ELECTRIC & GAS COMPANY
DOCKET NO. 2012-225-E**

RECEIVED
2012 JUN 19 11:13:06
SOUTH CAROLINA
PUBLIC SERVICE
COMMISSION

Q. PLEASE STATE YOUR NAME AND BUSINESS ADDRESS.

A. My name is Dwight M. Hollifield. My business address is 10101 Claude
Freeman Drive, Suite 100-W, Charlotte, NC 28262.

Q. BY WHOM ARE YOU EMPLOYED AND IN WHAT CAPACITY?

A. I am employed by Pike Energy Solutions, LLC, a wholly owned subsidiary
of Pike Electric Corporation, as Director of the Facilities Planning & Siting
Division ("FPS"). Pike Electric Corporation is headquartered in Mt. Airy, North
Carolina.

**Q. PLEASE BRIEFLY DESCRIBE YOUR EDUCATIONAL BACKGROUND,
PROFESSIONAL ASSOCIATIONS, AND BUSINESS EXPERIENCE.**

A. I received an Associate of Science degree in Horticulture from Catawba
Valley College in 1967. I have been a registered landscape architect in South
Carolina since 1976 and am a member of the American Society of Landscape
Architects.

1 I was employed by Duke Power Company (now known as Duke Energy
2 Carolinas, LLC) and Duke Engineering & Services from July 1967 until May
3 2002 when Framatome ANP purchased Duke Engineering & Services. While at
4 Duke Power, I led the development of a comprehensive transmission line siting
5 process that FPS now executes when siting lines for various electrical utility
6 clients, including South Carolina Electric & Gas Company ("SCE&G"). I was
7 directly involved in the expansion of Duke Power's electrical transmission system,
8 particularly as it related to siting and site development planning for substations
9 and transmission lines. As Manager of Duke Power's Transmission Siting and
10 Landscape Architecture Department, my responsibilities included siting
11 transmission lines, which involved conducting studies to assess the environmental,
12 cultural resource, land use, and aesthetic effects of those transmission line
13 projects. I had responsibility for obtaining all necessary permits and licenses for
14 new transmission lines.

15 In 1995, my department moved from Duke Power to Duke Engineering &
16 Services, and we began siting transmission lines for various electric utility clients,
17 primarily in North Carolina, South Carolina and Georgia. We continued to site all
18 new transmission lines for Duke Power on a contractual basis.

19 Following the acquisition of Duke Engineering & Services by Framatome
20 ANP in 2002, I served as General Manager of Framatome's Facilities Planning &
21 Siting Department, and siting transmission lines and electrical substations
22 continued to be our primary service offering. Framatome's Facilities Planning &

1 Siting Department continued to site lines for Duke Power and for many other
2 clients, including SCE&G.

3 In 2005, two business associates and I acquired my department from
4 Framatome ANP and organized it as a limited liability company named Facilities
5 Planning & Siting, LLC. I served as President of Facilities Planning & Siting,
6 LLC until June 30, 2009, when we were acquired by Pike Electric Corporation.
7 While operating as a limited liability company and now as a department within
8 Pike Energy Solutions, LLC, our primary service offering was, and continues to
9 be, the siting, permitting and licensing of electrical transmission lines and
10 substations.

11 Pike Energy Solutions, LLC—with offices in Charlotte, North Carolina;
12 Pittsburgh, Pennsylvania; Austin, Texas; San Ramon, California; and Portland,
13 Oregon—provides electrical transmission and distribution systems planning,
14 siting, permitting, engineering and project management services to electrical
15 utility clients worldwide.

16 From 1990 until 2002, I represented Duke Energy on the Edison Electric
17 Institute's Siting and Environmental Planning Task Force. In 1991, I was
18 appointed to and served on the North Carolina Utilities Commission Rulemaking
19 Committee that drafted Rule R8-62, which is used by the Commission to
20 administer the provisions of North Carolina's Transmission Line Siting Act.

1 Since 1987, I have participated in and managed the successful siting,
2 permitting and licensing of more than 180 transmission lines, virtually all of which
3 are located in North and South Carolina.

4
5 **Q. WHAT IS THE PURPOSE OF YOUR TESTIMONY?**

6 A. The purpose of my testimony is to discuss the transmission line siting
7 methodology that SCE&G, in collaboration with FPS, utilized when choosing the
8 routes for the VCS2-St. George 230 kilovolt (“kV”) Lines No. 1 and No. 2, the St.
9 George 230 kV Switching Station, and the Saluda River 230/115 kV Transmission
10 Substation. My company collected, mapped, and analyzed extensive information
11 regarding environmental, land use, cultural resource, and visual effects of the
12 proposed lines.

13
14 **Q. DO YOU HAVE ANY DOCUMENTS THAT SUPPORT OR ILLUSTRATE**
15 **YOUR TESTIMONY?**

16 A. Yes. As SCE&G’s siting and project permitting consultant, I am the author
17 of the Transmission Line Siting and Environmental Report for the VCS2-St.
18 George 230 kV Lines No. 1 and No. 2 and Associated Facilities (“Transmission
19 Line Siting and Environmental Report”), dated May 2012 and attached to
20 SCE&G’s Application in this docket as Exhibit A. This report details the need for
21 the VCS2-St. George 230 kilovolt (“kV”) Lines No. 1 and No. 2, the St. George 230
22 kV Switching Station, and the Saluda River 230/115 kV Transmission Substation,

1 the process by which SCE&G selected the routes for the lines, and the research
2 and studies conducted regarding the environmental, land use, cultural resource,
3 and visual effects of the lines and the associated facilities.

4
5 **Q. DO YOU HAVE ANY CHANGES TO THE TRANSMISSION LINE SITING**
6 **AND ENVIRONMENTAL REPORT AS IT WAS FILED WITH THE**
7 **COMPANY'S APPLICATION IN THIS DOCKET?**

8 A. Yes. I have two changes. First, Figure 3.1-7 on page 17 of the
9 Transmission Line Siting and Environmental Report incorrectly identifies the
10 distance from the left hand side of the right-of-way to the center of the existing H-
11 frame structure for the Dunbar Road-Dixiana 115 kV Line as 85 feet. The correct
12 distance is 65 feet.

13 Second, after SCE&G filed its Application in this docket with the
14 Commission, it learned that certain data relied on in developing the Technical
15 Memorandum for Record of No Significant Cultural Findings; Phase I
16 Archaeological Resources Survey of the SCE&G VCS2-St. George 1 and 2 Line 1-
17 Mile Extension, Richland County, South Carolina ("Technical Memorandum"),
18 dated February 6, 2012, and identified as Appendix C to the Transmission Line
19 Siting and Environmental Report, was incorrect. The Technical Memorandum has
20 been revised and is identified as Revision Number 1, dated July 2012.
21 Accordingly, attached to my direct testimony as Exhibit No. __ (DMH-1) is a

1 copy of the Transmission Line Siting and Environmental Report that includes the
2 revisions discussed above.

3
4 **Q. PLEASE DESCRIBE THE ROUTE FOR THE PROPOSED VCS2-ST.**
5 **GEORGE 230 kV LINES NO. 1 AND NO. 2 AND THE LOCATIONS FOR**
6 **THE ST. GEORGE 230 kV SWITCHING STATION AND THE SALUDA**
7 **RIVER 230/115 kV TRANSMISSION SUBSTATION.**

8 A. The VCS2-St. George 230 kV Lines No. 1 and No. 2 will originate at the
9 V.C. Summer Switchyard #2 and terminate at the planned St. George 230 kV
10 Switching Station, near St. George, South Carolina. The length of the VCS2-St.
11 George 230 kV Line No. 1 will be approximately 97 miles. A 22-mile segment of
12 the VCS2-St. George 230 kV Line No. 1, for which the Commission granted
13 SCE&G a Certificate of Environmental Compatibility and Public Convenience
14 and Necessity in Order No. 2011-978, will run alongside the VCS2-Lake Murray
15 230 kV Line No. 2 between the V.C. Summer Switchyard #2 and the Lake Murray
16 230/115 kV Substation. My testimony in this proceeding will focus on the
17 remaining 75-mile segment of the VCS2-St. George 230 kV Line No. 1 for which
18 SCE&G is presently seeking a Certificate of Environmental Compatibility and
19 Public Convenience and Necessity and the entire VCS2-St. George 230 kV Line No.
20 2.

1 The VCS2-St. George 230 kV Line No. 2 will be approximately 93.6 miles
2 long. Departing the V.C. Summer Switchyard #2, the VCS2-St. George 230 kV
3 Line No. 2 will run alongside the VCS2-Lake Murray 230 kV Line No. 1 for
4 approximately 18.6 miles to the intersection with the VCS2-Lake Murray 230 kV
5 Line No. 2/St. George 230 kV Line No. 1 near the Lake Murray 230/115 kV
6 Substation. Of this total 18.6 mile distance, approximately 1.5 miles of the route
7 will be constructed on property owned by SCE&G associated with the V.C.
8 Summer Nuclear Station, and the remaining approximately 17.1 miles will be
9 constructed within existing SCE&G rights-of-way that is presently occupied by
10 the VCS1-Lake Murray 230 kV Line No. 1, which will be re-terminated at the new
11 VCSNS Switchyard #2 and renamed the VCS2-Lake Murray 230 kV Line No. 1.

12 After the intersection of the VCS2-Lake Murray 230 kV Line No. 2/St.
13 George 230 kV Line No. 1 with the VCS2-Lake Murray 230 kV Line No. 1/St.
14 George 230 kV Line No. 2 near the Lake Murray 230/115 kV Substation, the
15 VCS2-St. George 230 kV Lines No. 1 and No. 2 will run alongside one another
16 within various existing SCE&G rights-of-way for approximately 75 miles to the
17 planned St. George 230 kV Switching Station near St. George, South Carolina.

18 The St. George 230 kV Switching Station will be built within a 59-acre
19 parcel, which is located in Dorchester County on Brown Chapel Road,
20 approximately one-half ($\frac{1}{2}$) mile east of Interstate Highway 95 and one-half ($\frac{1}{2}$)
21 mile north of U.S. Highway 78.

1 Along the way, SCE&G anticipates that the VCS2-St. George 230 kV Line
2 No. 2 will fold into SCE&G's planned Saluda River 230/115 kV Substation near
3 West Columbia, South Carolina. The Saluda River 230/115 kV Substation will be
4 built within an approximate 50-acre parcel, which is adjacent to the existing right-
5 of-way corridor to be used for the VCS2-St. George 230 kV Lines. The parcel
6 fronts Davega Road just south of Interstate Highway 20 between the Bush River
7 Road and U.S. Highway 378 interchanges.

8
9 **Q. WILL THE PROPOSED ST. GEORGE 230 kV LINES NO. 1 AND NO. 2,**
10 **THE ST. GEORGE 230 kV SWITCHING STATION, AND THE SALUDA**
11 **RIVER 230/115 kV TRANSMISSION SUBSTATION HAVE ANY**
12 **SIGNIFICANT SHORT- OR LONG-TERM ENVIRONMENTAL**
13 **IMPACTS?**

14 **A.** No. As explained in more detail in the Transmission Line Siting and
15 Environmental Report, the construction and operation of the VCS2- St. George
16 230 kV Lines No. 1 and No. 2, the St. George 230 kV Switching Station, and the
17 Saluda River 230/115 kV Transmission Substation will not have any significant
18 short- or long-term impacts on the environment.

1 **Q. WHAT WAS THE CONCLUSION OF THE STUDIES THAT WERE**
2 **CONDUCTED FOR THE PROPOSED VCS2-ST. GEORGE 230 kV LINES**
3 **NO. 1 AND NO. 2, THE ST. GEORGE 230 kV SWITCHING STATION,**
4 **AND THE SALUDA RIVER 230/115 kV TRANSMISSION SUBSTATION**
5 **TO DETERMINE EFFECTS TO RARE, THREATENED AND**
6 **ENDANGERED SPECIES?**

7 **A.** Field surveys were conducted by biologists and botanists to search for rare,
8 threatened and endangered species along the route of the VCS2-St. George 230 kV
9 Lines No. 1 and No. 2 and at the locations of the St. George 230 kV Switching
10 Station and the Saluda River 230/115 kV Transmission Substation. Prior to
11 beginning field surveys, the U.S. Fish and Wildlife Service (“USFWS”) and the
12 South Carolina Department of Natural Resources (“SCDNR”) were contacted to
13 obtain the most current known state and federally-protected species occurrence
14 information, and each agency provided the requested data. Ground surveys were
15 conducted to search for state and federally-listed rare, threatened and endangered
16 plant and animal species within the transmission line right-of-way corridors for all
17 of the new 230 kV lines associated with the VCSNS Units 2 and 3 project,
18 including the routes for the VCS2-St. George 230 kV Lines No. 1 and No. 2, and
19 at the locations of the St. George 230 kV Switching Station and the Saluda River
20 230/115 kV Transmission Substation. One-state listed plant species, Carolina St.
21 Johns-wort, was found in Lexington County within a segment of right-of-way that
22 will be utilized by the VCS2-St. George 230 kV Lines. SCE&G is taking

1 appropriate steps to ensure proper avoidance and protection during construction
2 and during long-term right-of-way maintenance operations. Because its habitat
3 will not change due to vegetative clearing, no long-term effects due to habitat
4 modification will occur.

5 No other state or federally-listed plant or animal species was found within
6 or immediately adjacent to the right-of-way corridors for the VCS2-St. George
7 230 kV Lines No. 1 and No. 2 or at the locations of the St. George 230 kV
8 Switching Station and the Saluda River 230/115 kV Transmission Substation.
9 Thus, the proposed VCS2-St. George 230 kV Lines No. 1 and No. 2, the St.
10 George 230 kV Switching Station, and the Saluda River 230/115 kV Transmission
11 Substation are unlikely to have any adverse effects on rare, threatened or
12 endangered species.

13
14 **Q. PLEASE DESCRIBE THE IMPACTS TO WETLANDS OR STREAMS, IF**
15 **ANY, THAT WILL RESULT FROM CONSTRUCTION AND OPERATION**
16 **OF THE VCS2-ST. GEORGE 230 kV LINES NO. 1 AND NO. 2, THE ST.**
17 **GEORGE 230 kV SWITCHING STATION, AND THE SALUDA RIVER**
18 **230/115 kV TRANSMISSION SUBSTATION.**

19 **A.** The construction and operation of the VCS2-St. George 230 kV Lines No.
20 1 and No. 2, the St. George 230 kV Switching Station, and the Saluda River
21 230/115 kV Transmission Substation will not have any significant short- or long-
22 term impacts to wetlands or streams. SCE&G will utilize established wetland

1 protection guidelines when operating near or within wetland areas. The basic
2 function of wetlands crossed by the VCS2-St. George 230 kV Lines No. 1 and No.
3 2 and the associated facilities will not be changed, and no wetlands will be
4 converted to uplands. Due to clearing required in the existing right-of-way
5 between the Saluda River and Interstate Highway 26 within which the VCS2-St.
6 George 230 kV Lines will be built, approximately 2.9 acres of forested wetlands
7 will be converted to permanent herbaceous wetlands. This conversion will not
8 affect critical wetland functions that include surface water storage, subsurface
9 water storage, nutrient cycling, and particle retention. The wetland function
10 associated with maintenance of plant and animal communities will change in that
11 herbaceous wetlands will provide habitat for different plant and animal
12 communities than is typically provided by forested wetlands. It should be noted
13 that wetland impacts associated with the project will be offset through appropriate
14 compensatory mitigation, the plan for which has been reviewed and approved by
15 the U.S. Army Corps of Engineers (“USACE”) and other state and federal
16 regulatory and resource agencies through the Clean Water Act Section 404
17 permitting program and Section 401 certification program. The compensatory
18 mitigation plan adheres to Section 404/401 guidelines, as well as to: 1) 33 CFR
19 Chapter II, Part 332 – Compensatory Mitigation for Losses of Aquatic Resources;
20 2) the Charleston District USACE’s “Standard Operating Procedure for
21 Compensatory Mitigation,” issued September 19, 2002 (RD-SOP-02-01); and 3)
22 the Charleston District USACE’s “Guide for Preparing a Compensatory

1 Mitigation Plan,” last revised October 7, 2010. SCE&G will apply its
2 longstanding practices and procedures for operations within wetlands, which have
3 proven to be effective in preventing temporary, construction-related impacts to
4 wetlands and stream buffer zones.

5 The VCS2-St. George 230 kV Lines No. 1 and No. 2 will cross certain
6 streams along the way to the St. George 230 kV Switching Station. Any existing
7 low-growing vegetation will be left intact to the maximum practical extent in
8 stream buffer zones, and root mats in any specified buffer zones will not be
9 disturbed. SCE&G will install erosion control measures wherever they may be
10 required to prevent translocation of sediment from construction sites to wetlands
11 or streams. Based on my direct experience in planning erosion control measures
12 for more than 100 transmission line construction projects, there will be no adverse
13 impacts to wetlands or streams resulting from construction of the VCS2-St.
14 George 230 kV Lines No. 1 and No. 2, the St. George 230 kV Switching Station,
15 and the Saluda River 230/115 kV Transmission Substation.

1 **Q. WHAT WAS THE CONCLUSION OF THE CULTURAL RESOURCE**
2 **INVESTIGATION THAT WAS CONDUCTED ALONG THE ROUTE OF**
3 **THE VCS2-ST. GEORGE 230 kV LINES NO. 1 AND NO. 2 AND AT THE**
4 **LOCATIONS OF THE ST. GEORGE 230 kV SWITCHING STATION AND**
5 **THE SALUDA RIVER 230/115 kV TRANSMISSION SUBSTATION?**

6 **A.** SCE&G entered into a Cultural Resources Management Plan and
7 Agreement (“CRMPA”) with the South Carolina State Historic Preservation
8 Office (“SHPO”) and the USACE regarding management of potential cultural
9 resources within all proposed line rights-of-way corridors associated with
10 construction of VCSNS Units 2 and 3. The identification, assessment, and
11 protection of cultural resources along the routes of the new 230 kV lines
12 associated with VCSNS Units 2 and 3, including the VCS2-St. George 230 kV
13 Lines No. 1 and No. 2, will be pursuant to the CRMPA. The terms of the CRMPA
14 are designed to ensure that cultural resources along the new 230 kV lines are
15 properly identified, assessed, and protected during construction and operation of
16 the lines.

17 Pursuant to its obligations under the terms of the CRMPA, SCE&G
18 engaged Brockington and Associates, Inc., a cultural resource consulting firm, to
19 conduct investigations along the route of the VCS2-St. George 230 kV Lines No.
20 1 and No. 2, including a comprehensive Phase I Cultural Resources Survey along
21 an approximately 1-mile long by 70-feet wide segment of the existing right-of-
22 way where vegetative clearing will occur. Additionally, Brockington conducted a

1 windshield reconnaissance survey to identify all above ground historic resources
2 within 1.25 miles of the route of the VCS2-St. George 230 kV Lines No. 1 and
3 No. 2 that are on the National Register of Historic Places (“NRHP”), eligible for
4 the NRHP, or potentially eligible for the NRHP.

5 Prior to conducting the Phase I Cultural Resources Survey field
6 investigation along the approximately 1-mile long by 70-foot wide segment of
7 right-of-way, Brockington conducted background research in January 2012 to
8 determine if any archaeological or historic sites had been previously recorded
9 within or near the 1-mile segment of right-of-way. The background research was
10 conducted by reviewing the electronic cultural resources database maintained by
11 the South Carolina Institute of Archaeology and Anthropology (“SCIAA”), which
12 is standard practice in South Carolina for background cultural resource research.
13 The review of the SCIAA data indicated that no previously recorded
14 archaeological or historic resources reside in or within one-half (½) mile of the
15 approximately 1-mile right-of-way segment where vegetative clearing will occur,
16 and the subsequent Phase I Cultural Resources Survey field investigation
17 conducted by Brockington confirmed that no archaeological resources are present
18 in this right-of-way segment.

19 As I previously discussed, after SCE&G filed its Application with the
20 Commission, Brockington informed me that, during a subsequent unrelated
21 cultural resources investigation in the area near the approximately 1-mile segment
22 of right-of-way, Brockington determined that the SCIAA data it had relied on to

1 conduct the background research for the approximately 1-mile segment of the
2 VCS2-St. George 230 kV Lines No. 1 and No. 2 right-of-way was not correct.
3 Brockington made the SHPO aware of the error in the SCIAA data, and the SHPO
4 confirmed the error. Brockington then completed tasks necessary to review the
5 conclusions it had previously reached after completing the initial background
6 research and Phase I Cultural Resources Survey investigation along the
7 approximately 1-mile segment of right-of-way.

8 Following the discovery and confirmation of the SCIAA data error,
9 Brockington conducted background research a second time by visiting the SCIAA
10 and the South Carolina Department of Archives and History and examining the
11 source documents and maps that are used to create the electronic files maintained
12 by the SCIAA. This second background research effort revealed that eighteen
13 (18) archaeological sites are recorded as residing within one-half (½) mile of the
14 approximately 1-mile long by 70-feet wide segment over which Brockington
15 conducted the initial Phase I Cultural Resources Survey. Of these eighteen sites,
16 four (4) were reported to reside within the approximately 1-mile long right-of-way
17 segment that will be utilized for the VCS2-St. George 230 kV Lines No. 1 and No.
18 2. After collecting the correct data regarding previously recorded archaeological
19 sites, Brockington reviewed the findings of the original Phase I Cultural Resources
20 Survey field investigation and concluded that due to the absence of cultural
21 materials and extremely poor site conditions, the four (4) sites previously reported
22 to be within the right-of-way were either no longer in existence or their precise

1 locations had not been correctly recorded when they were first discovered over 30
2 years ago. Consistent with the original findings, Brockington, upon completion of
3 the Phase I Cultural Resources Survey review, determined that no previously
4 recorded or new archaeological sites are present in the approximately 1-mile
5 segment of the VCS2-St. George 230 kV Lines No. 1 and No. 2 right-of-way.
6 The remaining fourteen (14) recorded sites outside the right-of-way were
7 evaluated according to South Carolina standards, and Brockington determined that
8 they will not be affected by construction of the VCS2-St. George 230 kV Lines
9 No. 1 and No. 2.

10 In addition to the eighteen (18) previously recorded archaeological sites
11 within one-half (½) mile of the 1-mile segment of the VCS2-St. George 230 kV
12 Lines No. 1 and No. 2, the Saluda Factory Historic District also resides within
13 one-half mile of the future lines. The historic district is on the NRHP, but it will
14 not be directly or indirectly affected by the VCS2-St. George 230 kV Lines No. 1
15 and No. 2.

16 As noted in Revision Number 1 to the Technical Memorandum, which is
17 attached as Appendix C to Exhibit No. __ (DMH-1), Brockington concluded that
18 no adverse effects to cultural resources will occur within the approximately 1-mile
19 long by 70-feet wide right-of-way segment where vegetative clearing will occur
20 and that construction of the VCS2-St. George 230 kV Lines will not result in
21 adverse effects to the Saluda Factory Historic District.

1 After Brockington completed the records research and windshield
2 reconnaissance survey that resulted in the identification of all significant historic
3 resources within 1.25 miles of the entire VCS2-St. George 230 kV Lines No. 1
4 and No. 2 route, Pike Energy Solutions, LLC, working closely with Brockington,
5 conducted comprehensive viewshed analysis studies and determined that the
6 VCS2-St. George 230 kV Lines No. 1 and No. 2 will have no adverse visual
7 effects to historic resources on the NRHP, eligible for the NRHP or potentially
8 eligible for the NRHP.

9 The CRMPA requires that cultural resource investigations be conducted
10 wherever land disturbance will occur, which includes new transmission line
11 structure sites. SCE&G and the SHPO are currently in consultation to determine
12 specific actions that will be implemented by SCE&G to investigate the possible
13 occurrence of cultural resources (archaeological resources) at new structure sites.
14 The SHPO has agreed to review a “cultural resource probability analysis,” which
15 is being developed by Brockington, in determining the extent to which Phase I
16 Cultural Resource Surveys will be required at new structure sites. For example,
17 where the probability for cultural resources occurrence is determined to be low,
18 the SHPO may not require investigations at each structure site; where the
19 probability is high, investigations at each structure site will likely be required. In
20 any event, SCE&G will comply with the final SHPO directive regarding Phase I
21 Cultural Resource Surveys at new structure sites.

1 In addition to cultural resource investigations along the route of the VCS2-
2 St. George 230 kV Lines No. 1 and No. 2, Brockington conducted Phase I Cultural
3 Resource Surveys over the entire two tracts of land on which the Saluda River
4 230/115 kV Substation and St. George 230 kV Switching Station will be
5 constructed. Brockington determined that no adverse effects to cultural resources
6 will occur as a result of constructing either of the two facilities. The studies were
7 documented in a report for each facility and submitted to the SHPO. The SHPO
8 has since issued concurrence letters for each project stating that the reports meet
9 the guidelines set forth in the South Carolina Standards and Guidelines for
10 Archaeological Investigations. Further, the SHPO concurs with Brockington's
11 conclusion that "no properties listed in or eligible for listing in the NRHP will be
12 affected" by the Saluda River 230/115 kV Substation or the St. George 230 kV
13 Switching Station.

14
15 **Q. WHAT WILL BE THE VISUAL EFFECTS OF THE PROPOSED VCS2-ST.**
16 **GEORGE 230 kV LINES NO. 1 AND NO. 2, THE ST. GEORGE 230 kV**
17 **SWITCHING STATION, AND THE SALUDA RIVER 230/115 kV**
18 **TRANSMISSION SUBSTATION?**

19 A. Various transmission structures presently reside within the existing rights-of-
20 way over the 97-mile route from the V.C. Summer Switchyard #2 to the planned St.
21 George 230 kV Switching Station. Any additional visual modifications to the scenic
22 quality of these regions as a result of the construction of the VCS2-St. George 230

1 kV Lines No. 1 and No. 2 will be minimal due to the placement of the new lines
2 within the existing, cleared transmission line rights-of-way in which the existing
3 structures presently reside and due to the replacement and upgrading of many of the
4 existing transmission structures within those rights-of-way. The visibility of the St.
5 George 230 kV Switching Station and Saluda River 230/115 kV Substation will be
6 limited to the immediate vicinity of each facility and recognizable visual change
7 resulting from the addition of the facilities will be significantly mitigated by
8 screening provided by the existing trees that will be retained on each site and by the
9 fact that existing SCE&G transmission lines run through or are adjacent to the sites.

10
11 **Q. IS THE IMPACT OF THE PROPOSED VCS2-ST. GEORGE 230 kV LINES**
12 **NO. 1 AND NO. 2, THE ST. GEORGE 230 kV SWITCHING STATION, AND**
13 **THE SALUDA RIVER 230/115 kV TRANSMISSION SUBSTATION UPON**
14 **THE ENVIRONMENT JUSTIFIED CONSIDERING THE STATE OF**
15 **AVAILABLE TECHNOLOGY AND THE NATURE AND ECONOMICS OF**
16 **THE VARIOUS ALTERNATIVES?**

17 A. Yes. Because SCE&G chose to build the VCS2-St. George 230 kV Lines
18 No. 1 and No. 2 entirely within existing SCE&G rights-of-way, the resulting
19 environmental, land use, cultural resource, and aesthetic effects are minimized.
20 Moreover, as Witness Young states in his testimony, SCE&G considered several
21 alternatives to the proposed lines and associated facilities and determined that the

1 proposed facilities are the superior solutions to provide its customers with long-
2 term electrical system reliability.

3
4 **Q. IN YOUR PROFESSIONAL JUDGMENT, WAS SCE&G'S SELECTION**
5 **OF THE ROUTE FOR THE VCS2-ST. GEORGE 230 kV LINES NO. 1 AND**
6 **NO. 2 AND THE LOCATIONS OF THE ST. GEORGE 230 kV**
7 **SWITCHING STATION AND THE SALUDA RIVER 230/115 kV**
8 **TRANSMISSION SUBSTATION PROPER?**

9 A. Yes. In my professional judgment, SCE&G's selection of the chosen route
10 for the VCS2-St. George 230 kV Lines No. 1 and No. 2 and the locations of the St.
11 George 230 kV Switching Station and the Saluda River 230/115 kV Transmission
12 Substation was proper.

13
14 **Q. DOES THIS CONCLUDE YOUR DIRECT TESTIMONY?**

15 A. Yes.